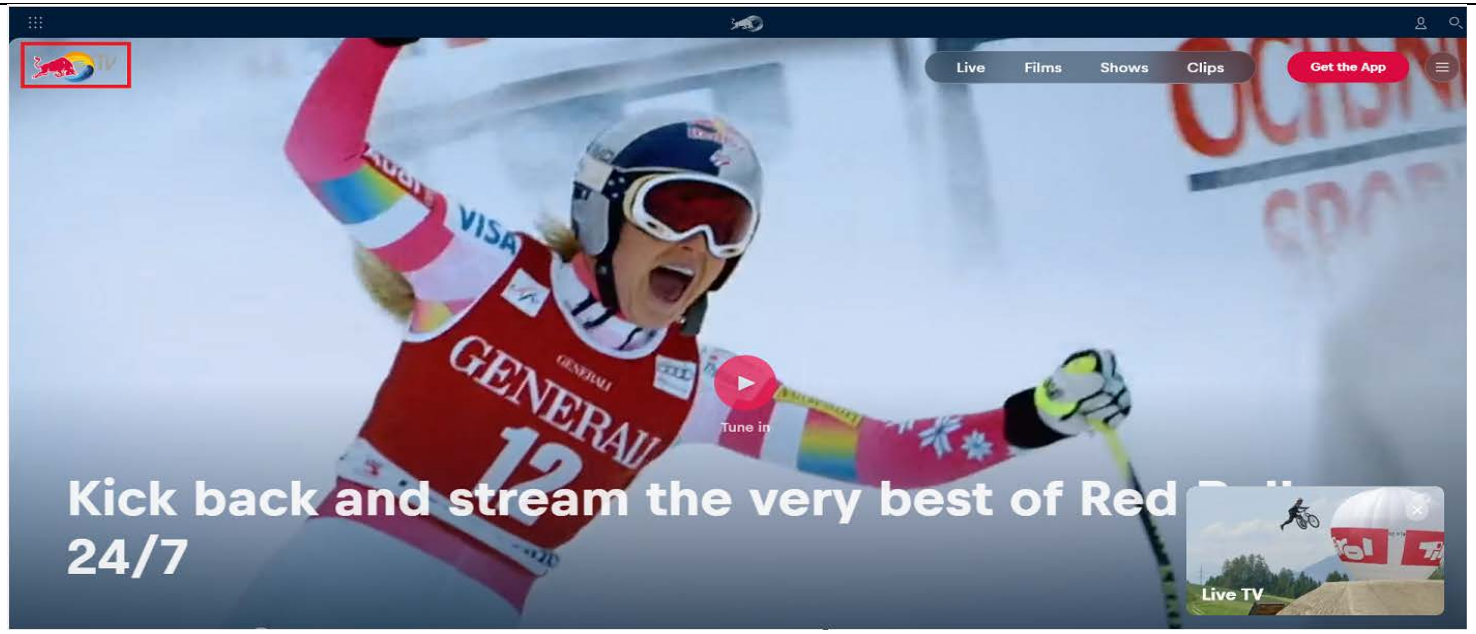
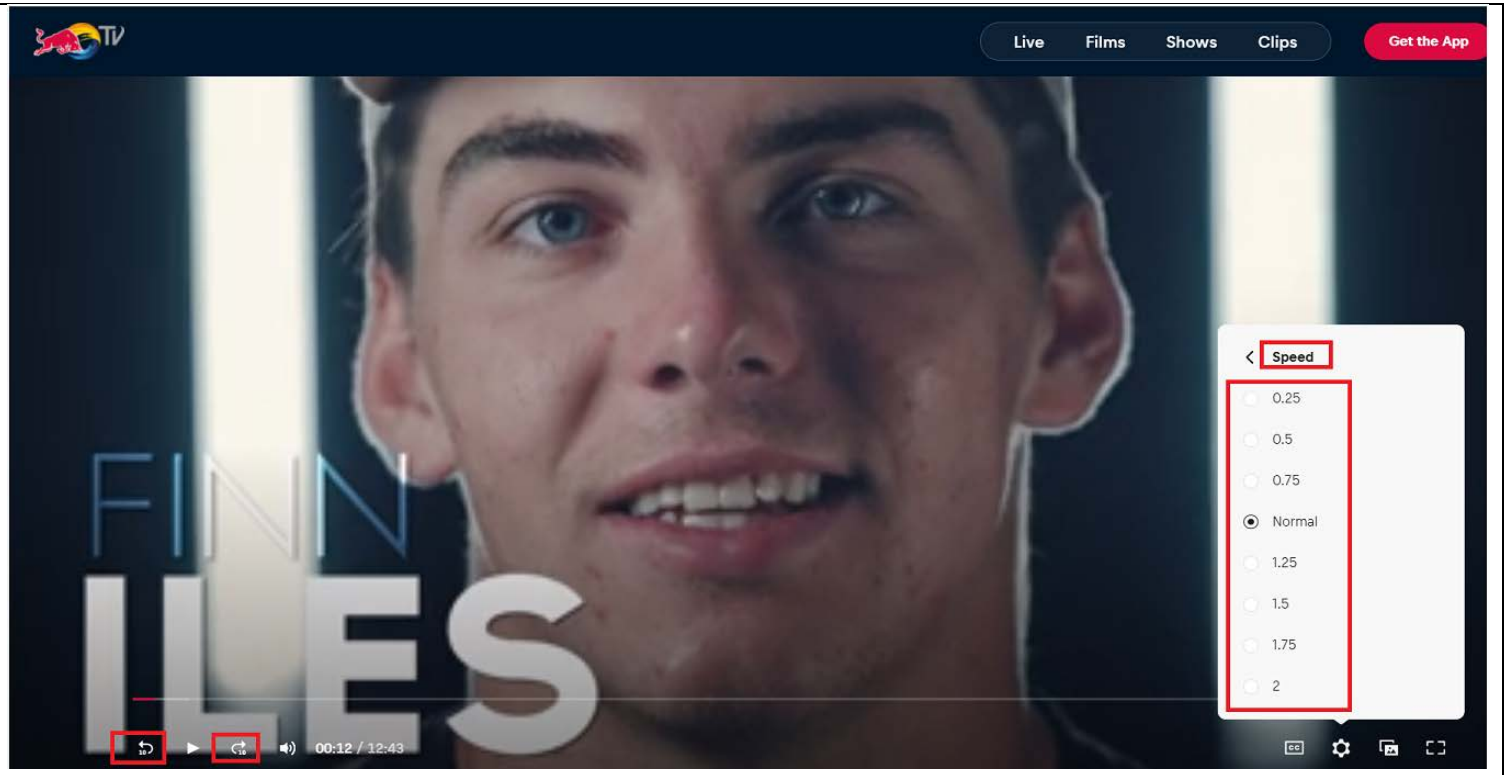
EXHIBIT C

US7079752	Red Bull
1. A process for recording, on a recording medium, a scrambled digital video stream, implementing the following steps, in addition to the recording of the scrambled data:	Red Bull supports HLS streaming protocol ("the Standard"). In addition, Red Bull utilizes HLS for delivery of contents to its customers/viewers. As shown below, a video content from Red Bull is streamed and the data traffic is captured showing the media format as HLS, the m3u8 file (e.g., the Media playlist file comprising links to content chunks in .m4s format used by HLS to contain information about the media playing), and the encryption scheme used by the streamed video. In addition, the HLS stream provided through Red Bull provides trick mode operation (e.g., 10 sec reverse and 10 sec forward trick mode or various play back speed such as 0.75, 1.25, etc.) to the streamed video. On information and belief, Defendant performs all steps of this claim or, alternatively, to the extent a user performs any step, Defendant conditions the user's use of the Defendant's accused instrumentalities using the Standard on the performance of that step as disclosed herein. For example, on information and belief, a user cannot use the accused instrumentality utilizing the Standard as described in this claim chart without performance of the steps recited in this claim. By providing the accused instrumentality utilizing the Standard as disclosed herein, Defendant also controls the manner and/or timing of the functionality described in this claim chart. In other words, for a user to utilize the functionality described in this claim chart, the steps of this claim must be performed in the manner described herein. Without performance of the steps as described herein, the Defendant's functionality will not be available to users. The Standard practices a process for recording (e.g., recording by means of downloading in a storage), on a recording medium (e.g., a storage mechanism), a scrambled digital video stream (e.g., scrambled video created by making use of AES 128 encryption), implementing the following steps, in addition to the recording of the scrambled data.

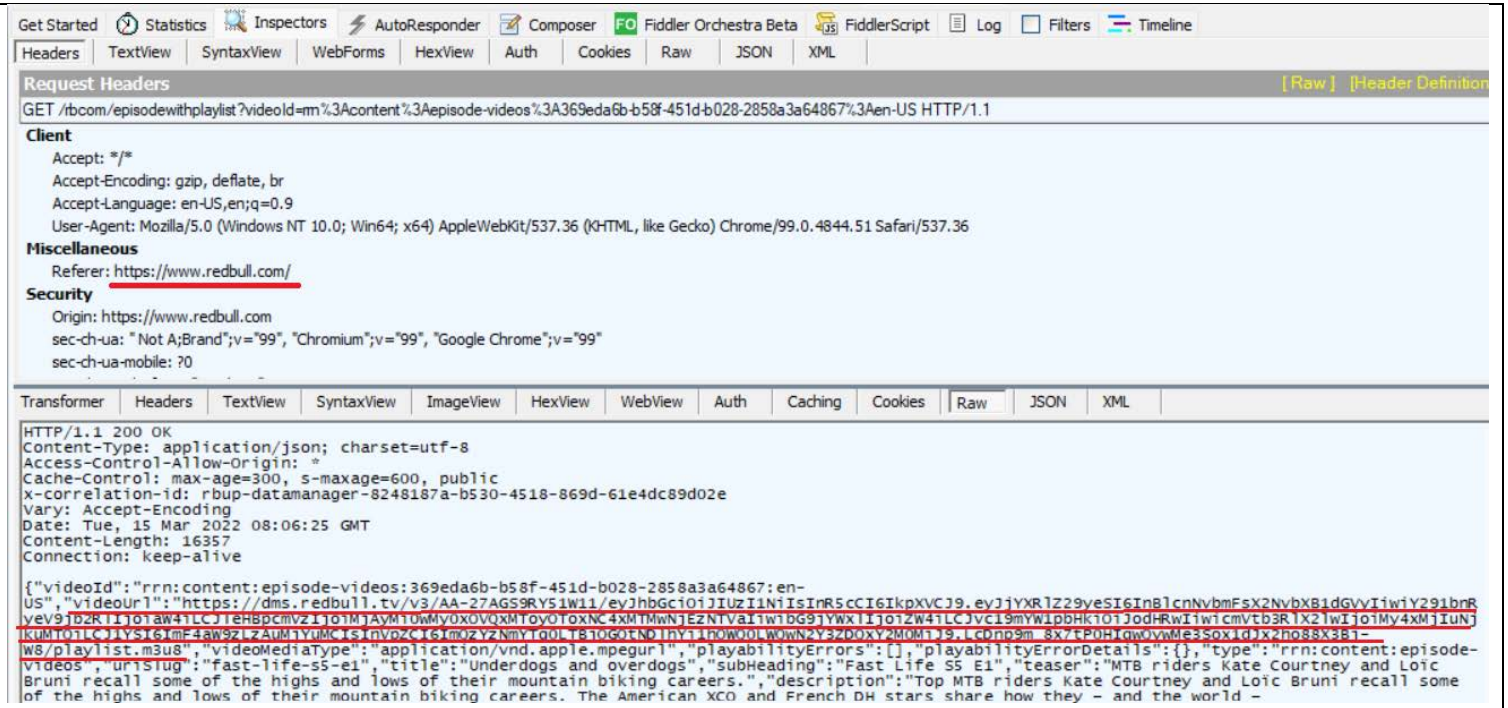


https://www.redbull.com/us-en/discover



https://www.redbull.com/us-en/episodes/fast-life-s5-e1

Shown below is the URL of .m3u8 master file sent by Red Bull server which identifies the usage of HLS based streaming by Red Bull servers. The m3u8 master file refers to all the variants of the video encoded for various bandwidths and resolutions. The URL of .m3u8 master file is: https://dms.redbull.tv/v3/AA-27AGS9RY51W11/eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJjYXRlZ29yeSI6InBlcnNvbmFsX2NvbXB1dGVyIiwiY291bnRyeV9jb2RlIjoiaW4iLCJleHBpcmVzIjoiMjAyMi0wMy0xOVQxMToyOToxNC4xMTMwNjEzNTVaIiwibG9jYWxlIjoiZW4iLCJvc19mYW1pbHkiOiJodHRwIiwicmVtb3RlX2lwIjoiMy4xMjIuNjkuMTQiLCJ1YSI6ImF4aW9zLzAuMjYuMCIsInVpZCI6ImQzYzNmYTg0LTBjOGQtNDlhYi1hOWQ0LWQwN2Y3ZDQxY2M0MiJ9.LcDnp9m_8x7tP0HIqwQywMe3Sox1dJx2ho88X3Bj-W8/playlist.m3u8



Source: Packet capturing by fiddler tool

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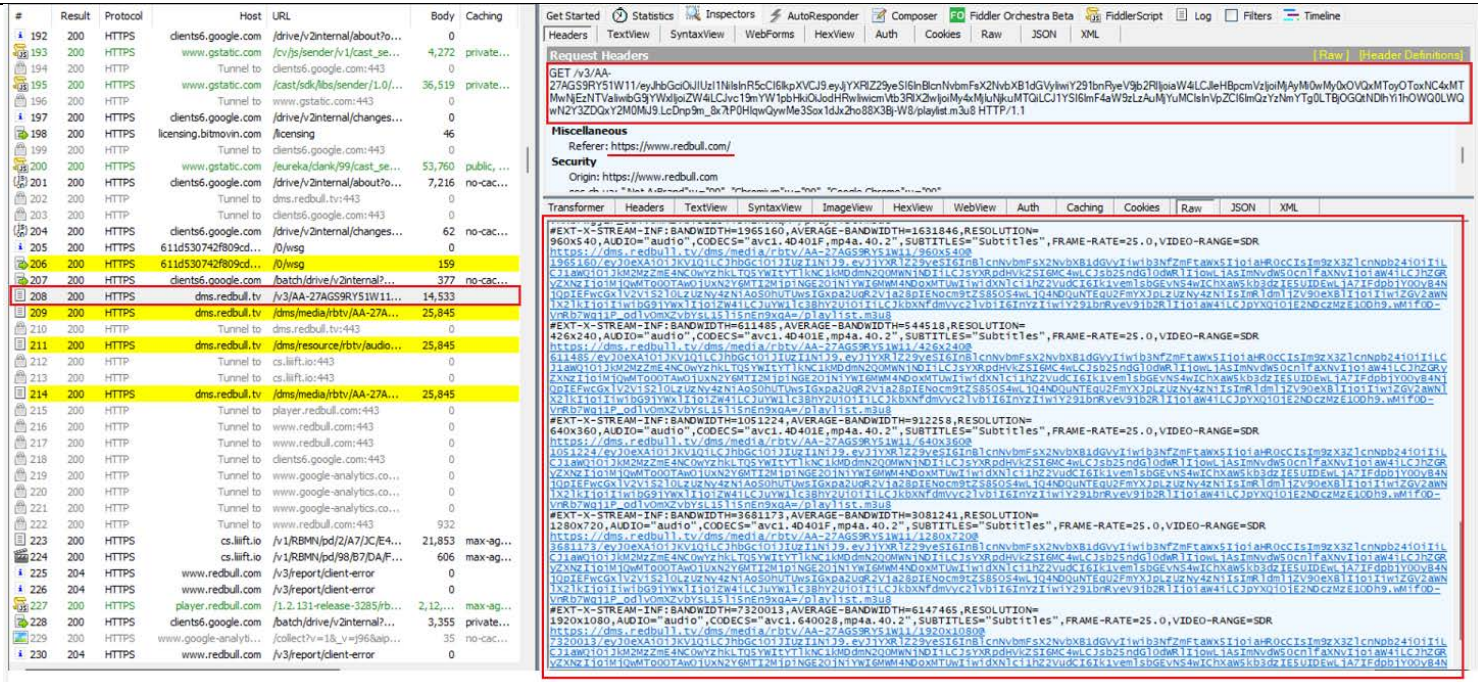
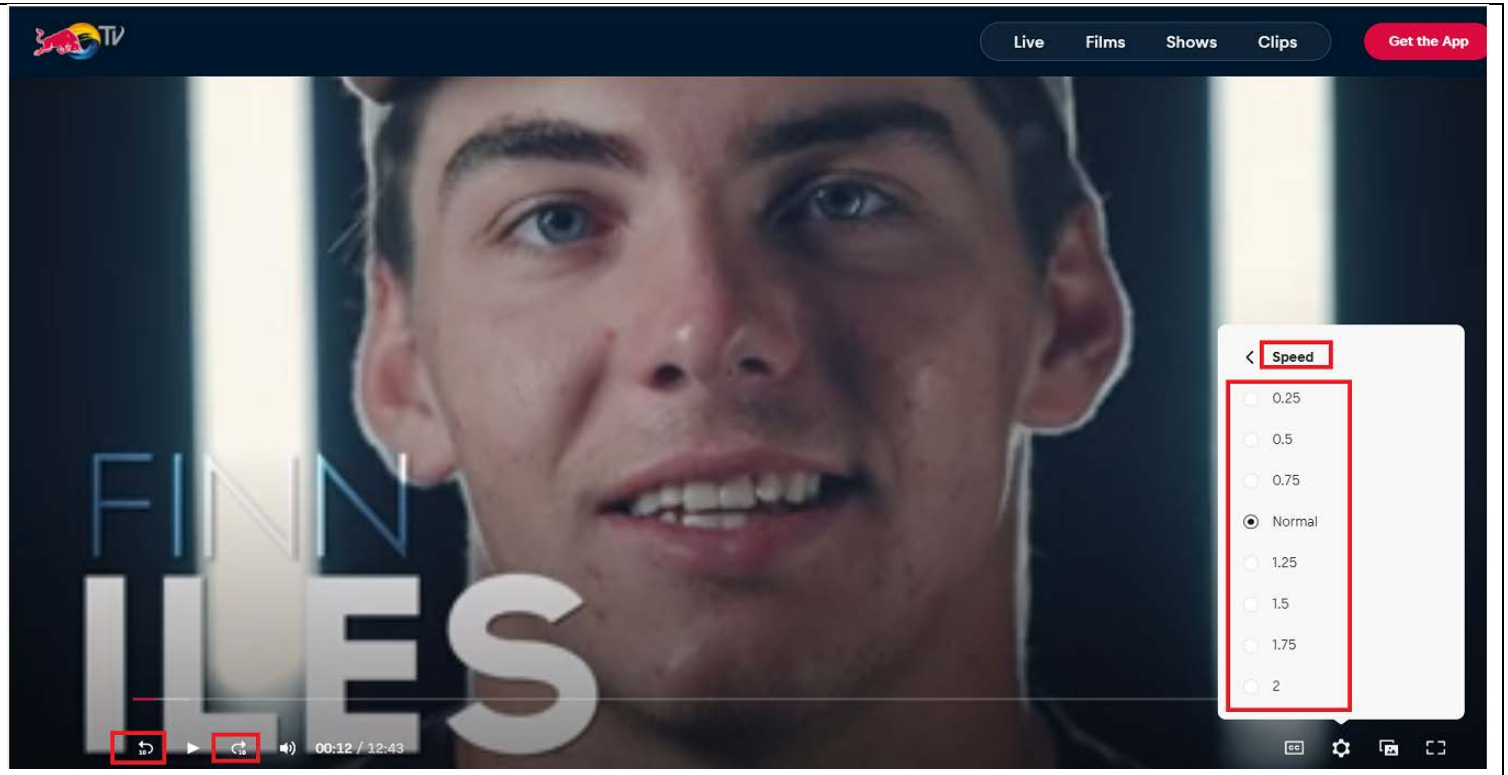


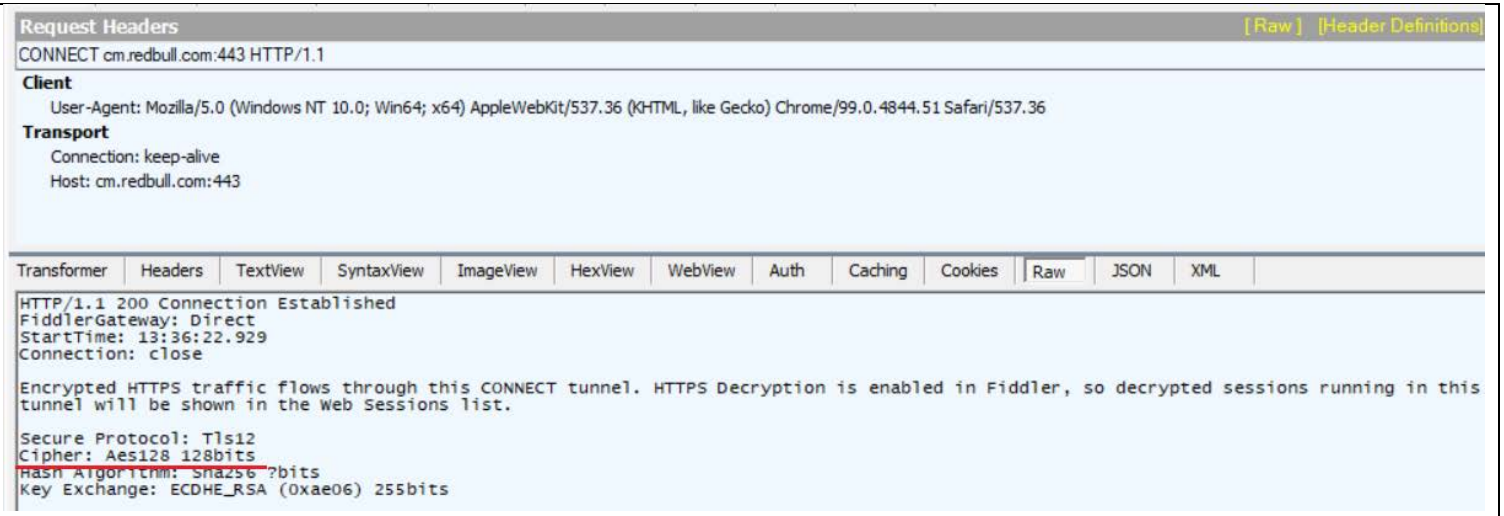
Source: Packet capturing by fiddler tool

Red Bull streams videos with the capability of being played with trick mode (e.g., 10 Sec reverse and 10 sec forward trick mode or various playback speed of 0.75, 1.25, etc.)



https://www.redbull.com/us-en/episodes/fast-life-s5-e1

Red Bull streams scrambled/encrypted content making use of AES 128 encryption.



Source: Packet capturing by fiddler tool

An encryption method of AES-128 signals that Media Segments are completely encrypted using the Advanced Encryption Standard (AES) [AES_128] with a 128-bit key, Cipher Block Chaining (CBC), and Public-Key Cryptography Standards #7 (PKCS7) padding [RFC5652]. CBC is restarted on each segment boundary, using either the Initialization Vector (IV) attribute value or the Media Sequence Number as the IV; see Section 5.2.

An encryption method of SAMPLE-AES means that the Media Segments contain media samples, such as audio or video, that are encrypted using the Advanced Encryption Standard [AES_128]. How these media streams are encrypted and encapsulated in a segment depends on the

media encoding and the media format of the segment. fMP4 Media Segments are encrypted using the 'cbcs' scheme of Common Encryption [COMMON_ENC]. Encryption of other Media Segment formats containing H.264 [H_264], AAC [ISO_14496], AC-3 [AC_3], and Enhanced AC-3 [AC_3] media streams is described in the HTTP Live Streaming (HLS) Sample Encryption specification [SampleEnc]. The IV attribute MAY be present; see Section 5.2.

https://tools.ietf.org/html/rfc8216

	1. Introduction to HTTP Live Streaming HTTP Live Streaming provides a reliable, cost-effective means of delivering continuous and long-form video over the Internet. It allows a receiver to adapt the bit rate of the media to the current network conditions in order to maintain uninterrupted playback at the best possible quality. It supports interstitial content boundaries. It provides a flexible framework for media encryption. It can efficiently offer multiple renditions of the same content, such as audio translations. It offers compatibility with large-scale HTTP caching infrastructure to support delivery to large audiences. Since the Internet-Draft was first posted in 2009, HTTP Live Streaming has been implemented and deployed by a wide array of content producers, tools vendors, distributors, and device manufacturers. In the subsequent eight years, the protocol has been refined by extensive review and discussion with a variety of media streaming implementors. The purpose of this document is to facilitate interoperability between HTTP Live Streaming implementations by describing the media transmission protocol. Using this protocol, a client can receive a continuous stream of media from a server for concurrent presentation. https://tools.ietf.org/html/rfc8216

	The first line is the format identifier tag #EXTM3U. The line containing #EXT-X-TARGETDURATION says that all Media Segments will be 10 seconds long or less. Then, three Media Segments are declared. The first and second are 9.009 seconds long; the third is 3.003 seconds. To play this Playlist, the client first downloads it and then downloads and plays each Media Segment declared within it. The client reloads the Playlist as described in this document to discover any added segments. Data SHOULD be carried over HTTP [RFC7230], but, in general, a URI can specify any protocol that can reliably transfer the specified resource on demand. https://tools.ietf.org/html/rfc8216 Playlist files contain URIs, which clients will use to make network requests of arbitrary entities. Clients SHOULD range-check responses to prevent buffer overflows. See also the Security Considerations section of "Uniform Resource Identifier (URI): Generic Syntax" [RFC3986]. https://tools.ietf.org/html/rfc8216

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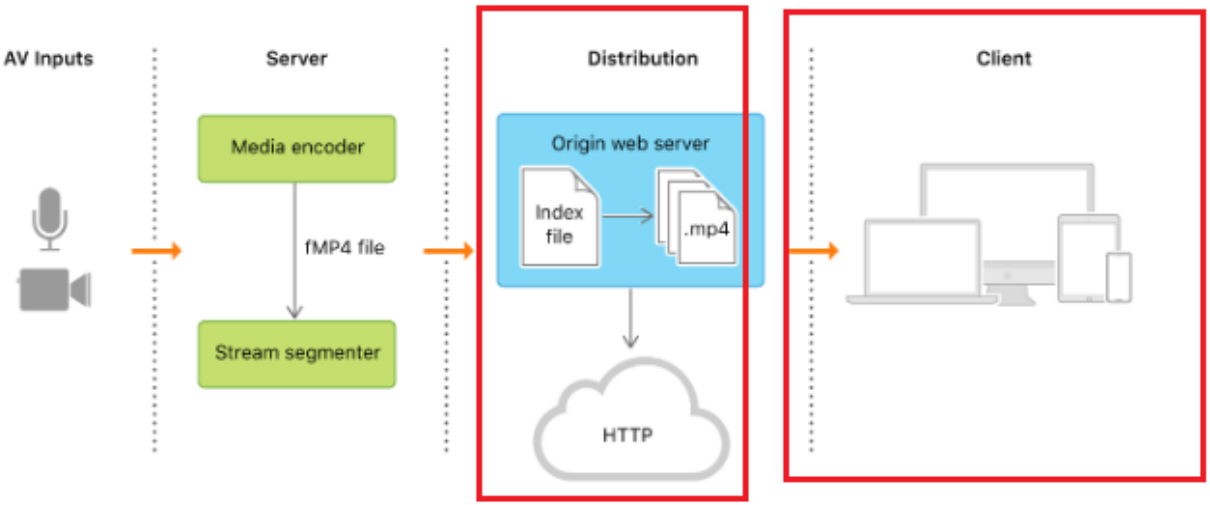
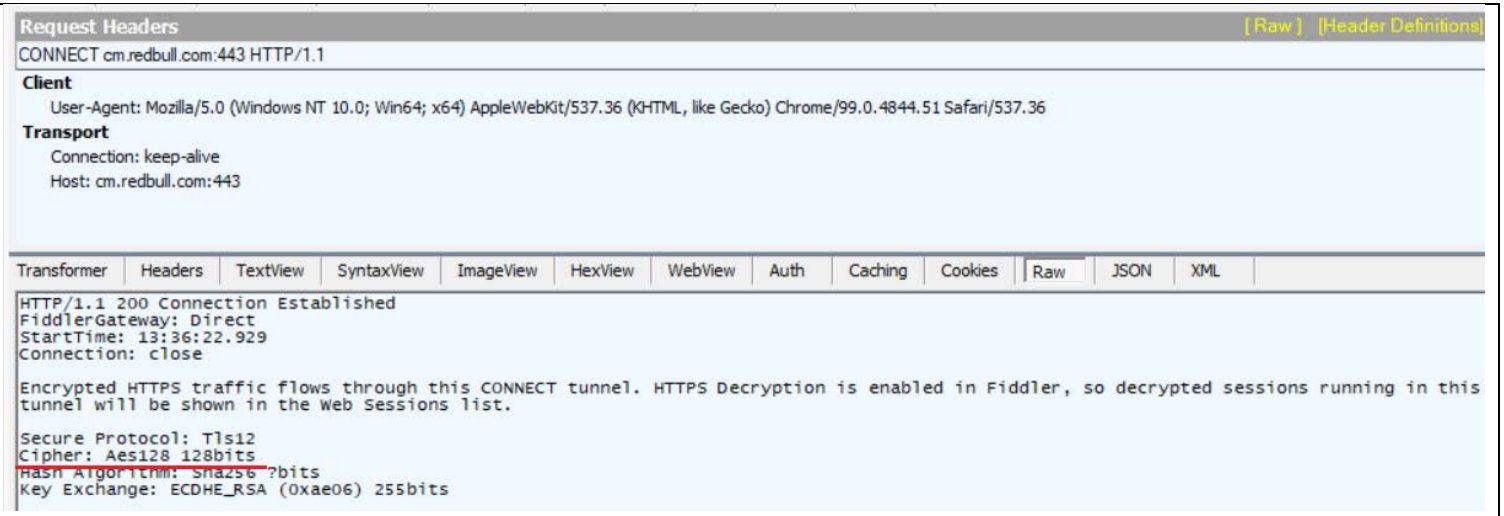
https://tools.ietf.org/html/rfc8216

	RFC 8216 HTTP Live Streaming August 2017 **5. Key Files** **5.1. Structure of Key Files** An EXT-X-KEY tag with a URI attribute identifies a Key file. A Key file contains a cipher key that can decrypt Media Segments in the Playlist. [AES_128] encryption uses 16-octet keys. If the KEYFORMAT of an EXT-X-KEY tag is "identity", the Key file is a single packed array of 16 octets in binary format. https://tools.ietf.org/html/rfc8216

	The following figure shows the components of an HTTP Live Stream.  Apple provides several frameworks that support HTTP Live Streaming, including AVKit, AVFoundation, and WebKit. https://developer.apple.com/documentation/http_live_streaming

	Latency is cumulative, hence it is added along the whole delivery path from transcoding to the client through the CDN (packaging/origin and caching). Yet, as of today, most of the latency comes from the client: Due to the operation of the protocol (HLS or DASH), and the request/response cycles necessary to obtain the media segments, clients have to maintain a large enough buffer to ensure smooth playback. As an example, an Apple HLS client will start playback once it has buffered at least two segments, resulting in observed latency ranging from 5 to 18 seconds depending on segment durations (2 to 6 seconds). To address these issues, both standards have proposed low-latency extensions altering the delivery to the client so that the client can reduce the size of its buffers its buffer sizes: ✔ On one side, DASH has built a proposal relying on CMAF combined with HTTP/1.1 chunked transfer encoding to limit the latency induced by the packaging step, with minimal changes on the player side. https://broadpeak.tv/blog/how-apple-hls-is-strengthening-its-hand-in-the-abr-game-with-ll-hls/
descrambling of said scrambled data of said stream so as to extract therefrom additional data corresponding to information required by at	The HLS standard practices descrambling (e.g., decrypting the received encrypted video segments) of said scrambled data of said stream (e.g., scrambled video segments) so as to extract therefrom additional data (e.g., information related to the video segments for trick mode) corresponding to information required by a function of the special mode or “trick mode.”

least one function of the special mode or "trick mode" (fast forward, fast rewind, accelerated motion, slow motion, etc.); and	 Source: Packet capturing by fiddler tool

	Decryption : The stages in the rounds can be easily undone as these stages have an opposite to it which when performed reverts the changes.Each 128 blocks goes through the 10,12 or 14 rounds depending on the key size. The stages of each round in decryption is as follows : • Add round key • Inverse MixColumns • ShiftRows • Inverse SubByte The decryption process is the encryption process done in reverse so i will explain the steps with notable differences. https://www.geeksforgeeks.org/advanced-encryption-standard-aes/

Inverse MixColumns :

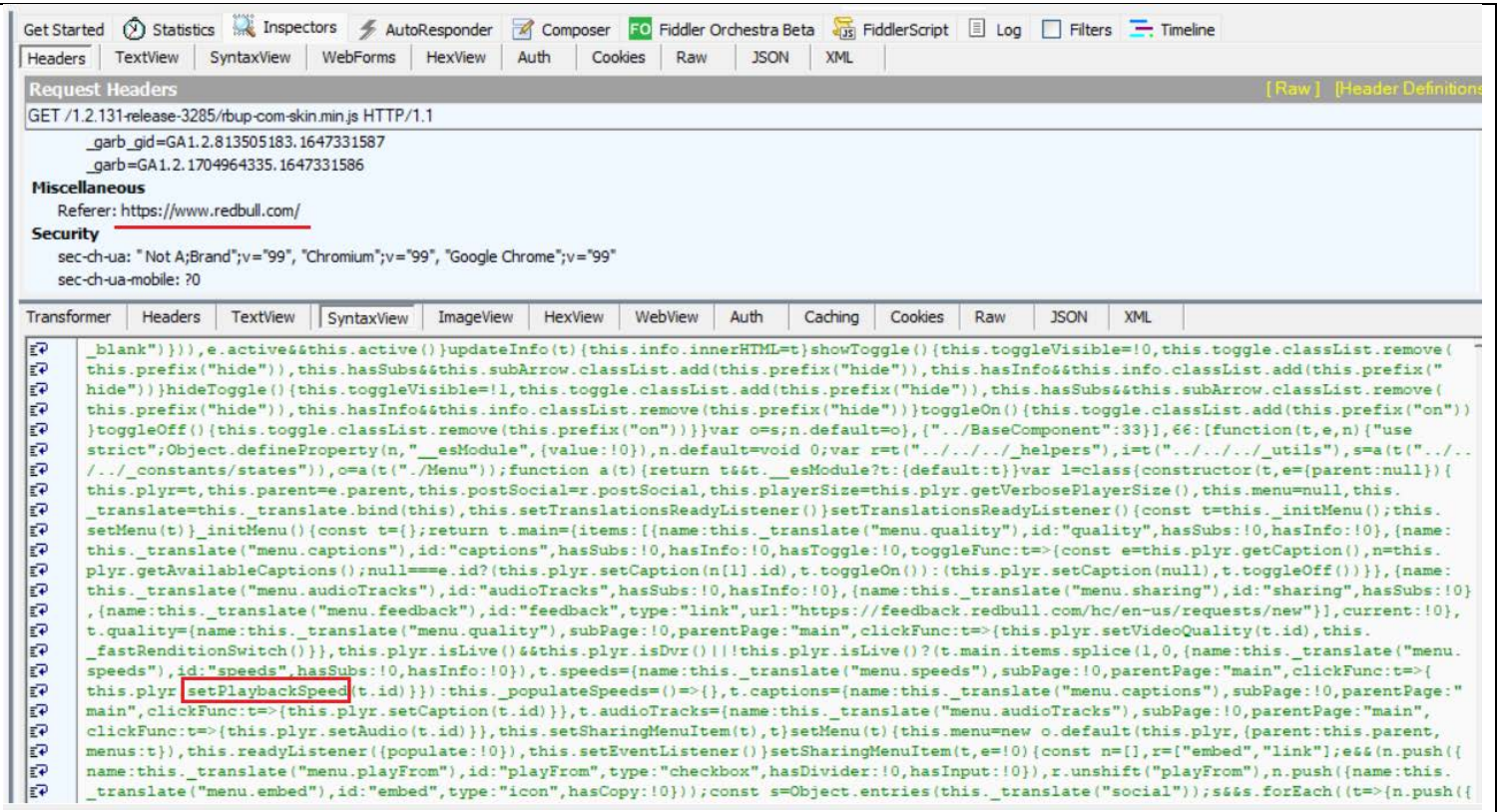
This step is similar to the MixColumns step in encryption, but differs in the matrix used to carry out the operation.

```
[ b0 ]         [ 14  11  13  9  ]  [ c0 ]
| b1 |  =      | 9   14  11  13 |     | c1 |
| b2 |      | 13  9   14  11 |     | c2 |
[ b3 ]         [ 11  13  9   14 ]     [ c3 ]
```

Inverse SubBytes :

Inverse S-box is used as a lookup table and using which the bytes are substituted during decryption.

https://www.geeksforgeeks.org/advanced-encryption-standard-aes/



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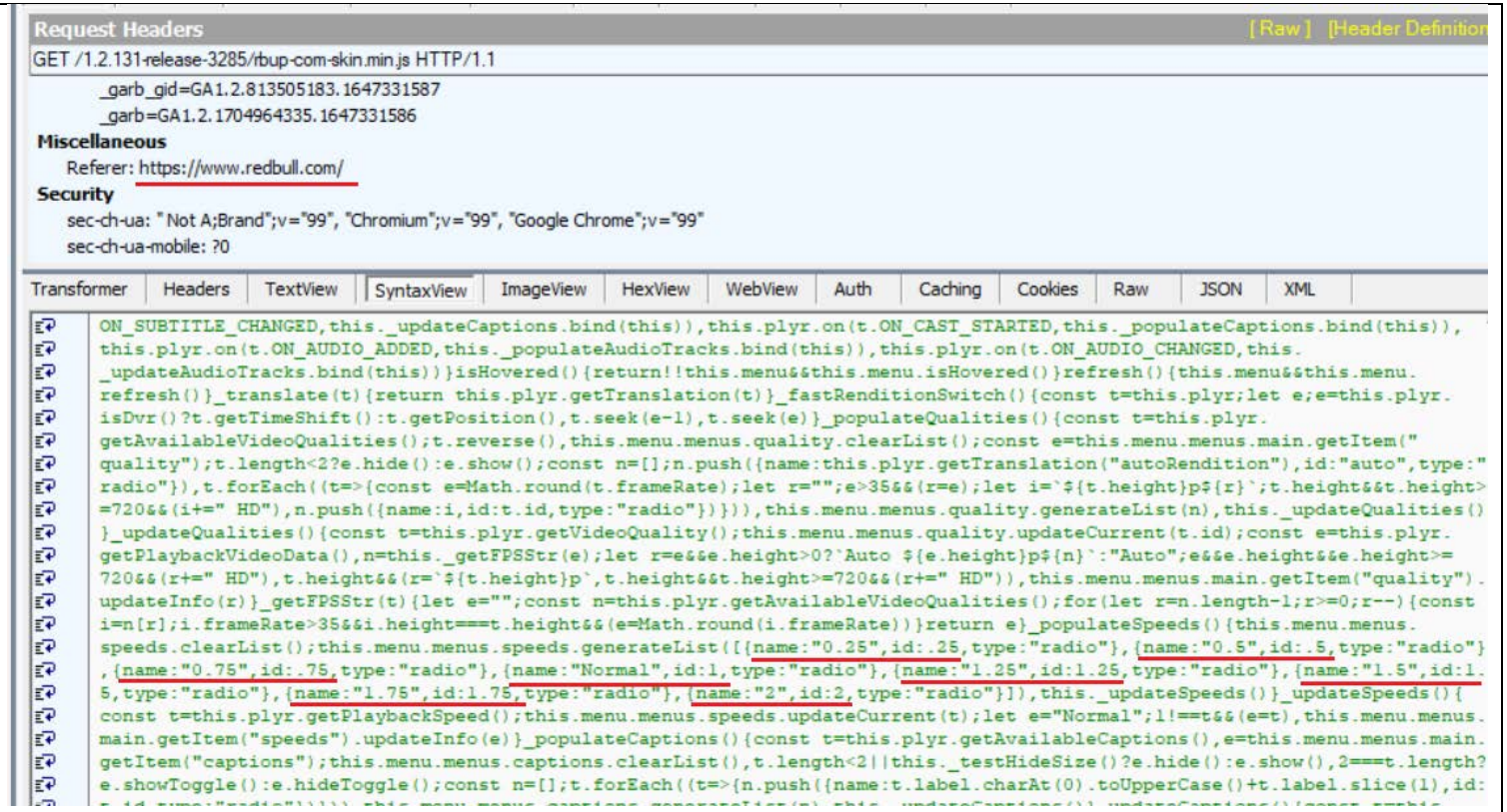

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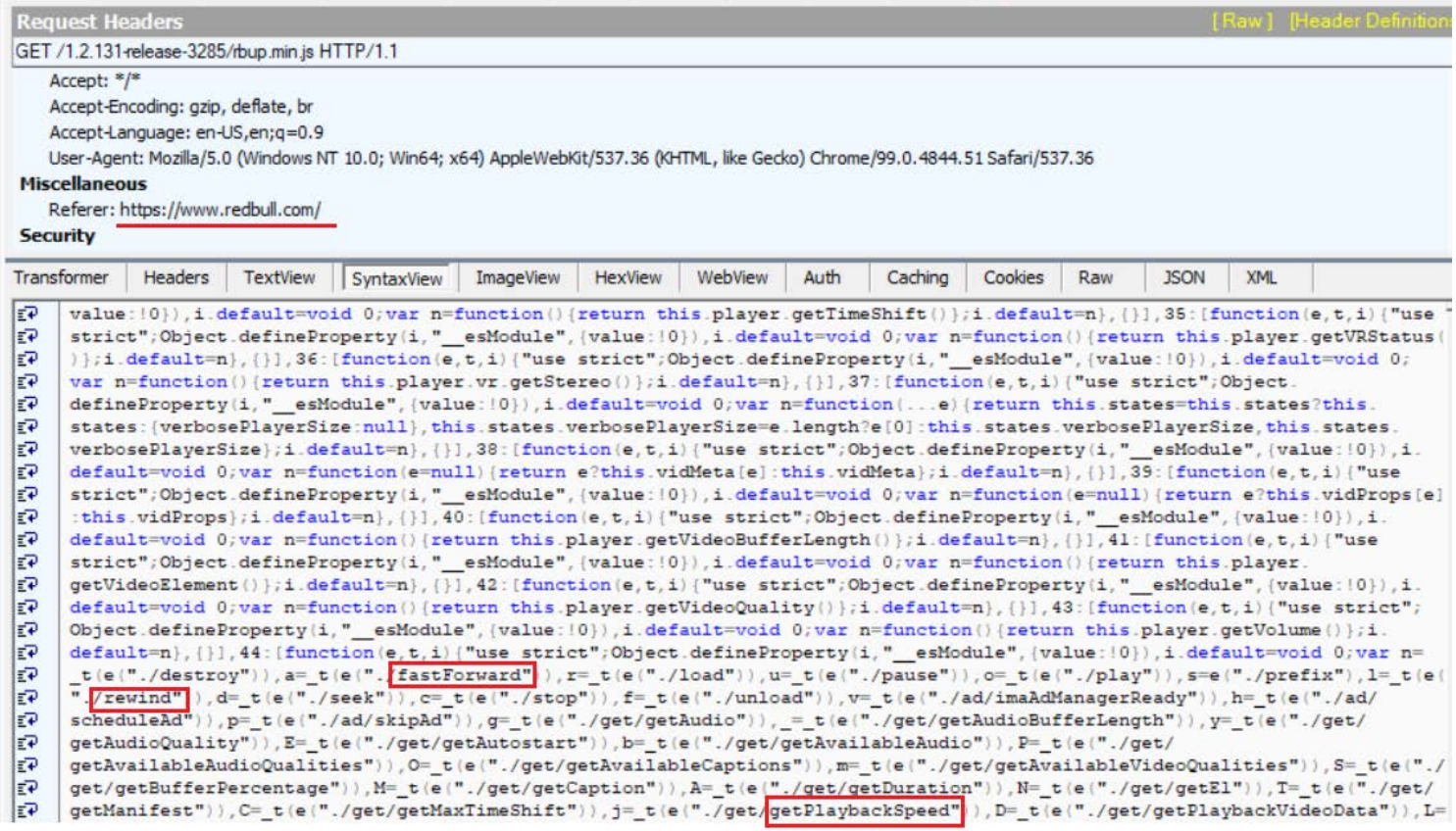

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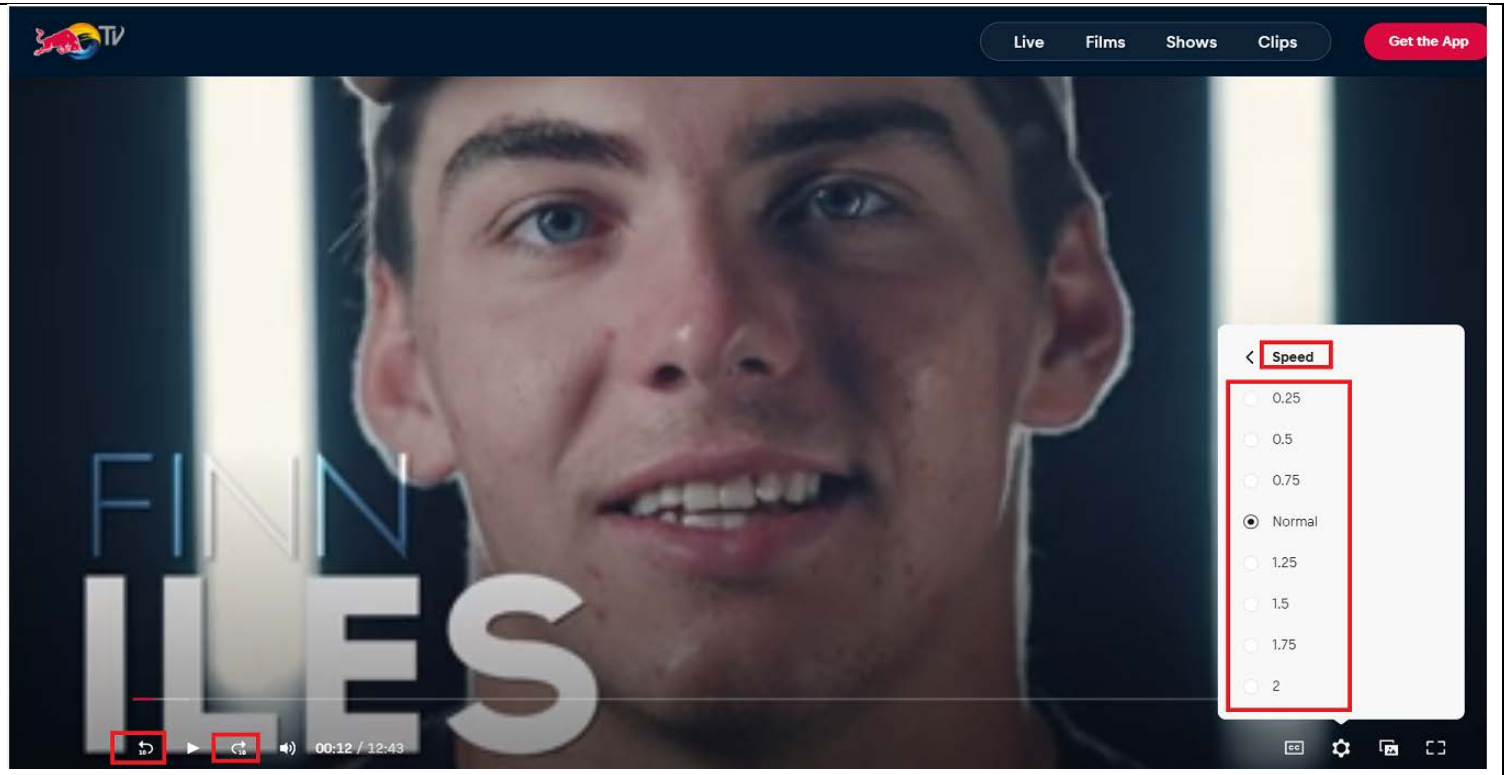
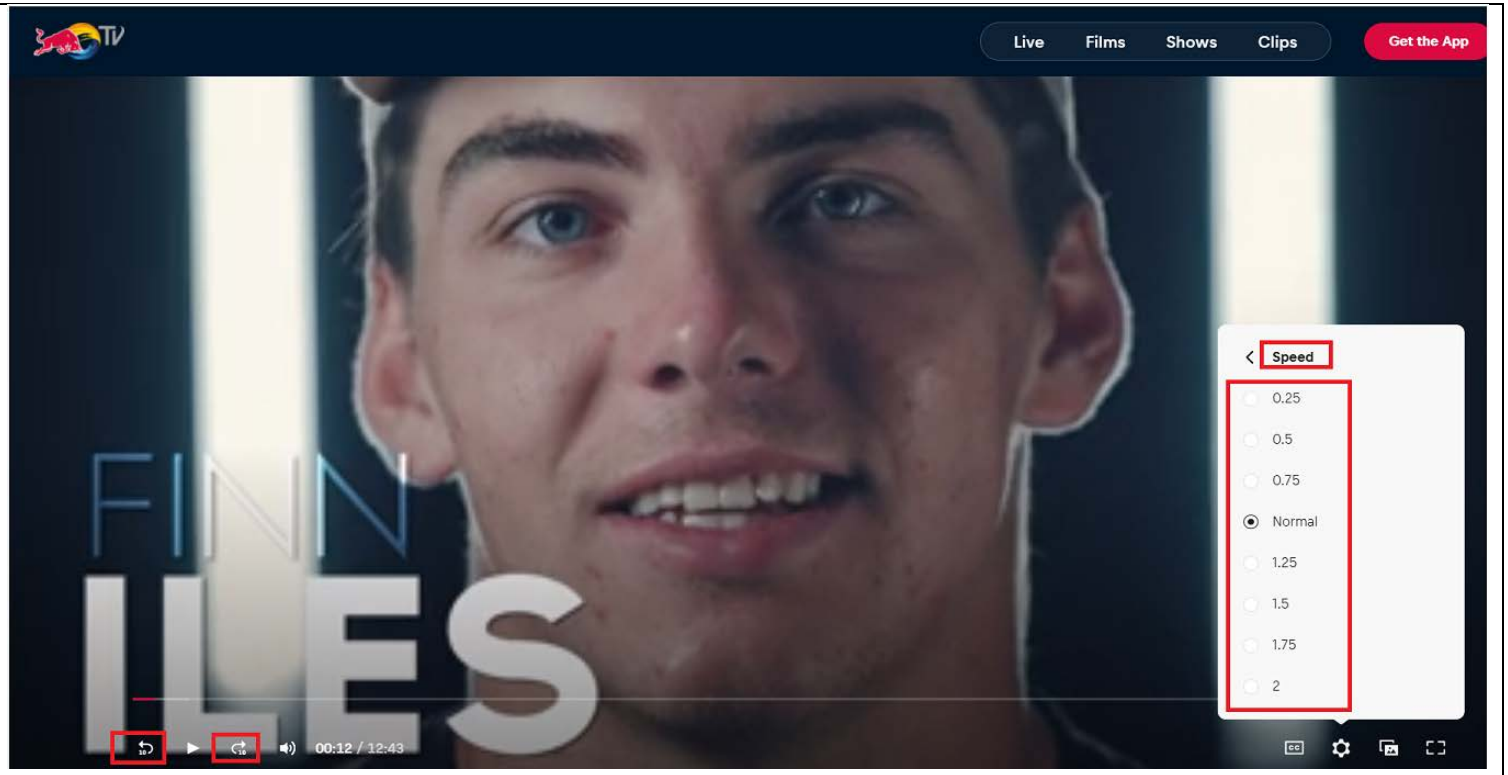
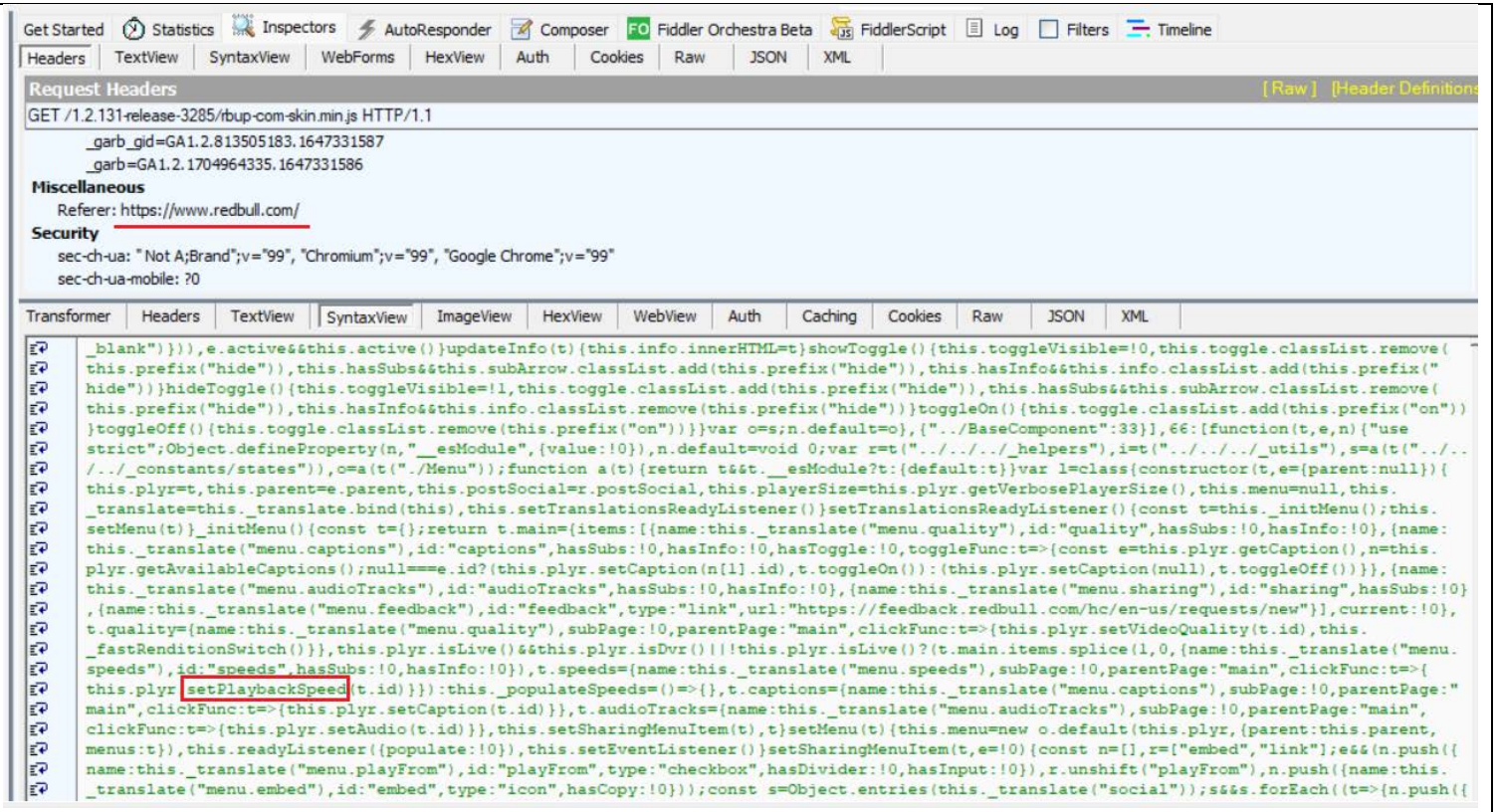
	 https://www.redbull.com/us-en/episodes/fast-life-s5-e1
recording of these additional data on the recording medium.	The product complying with the Standard practices recording of these additional data on the recording medium (e.g., downloading/buffering trick play information to enable trick play mode rendering). The product must store the data pertaining to trick modes to allow the playback of the video in trick modes.



https://www.redbull.com/us-en/episodes/fast-life-s5-e1



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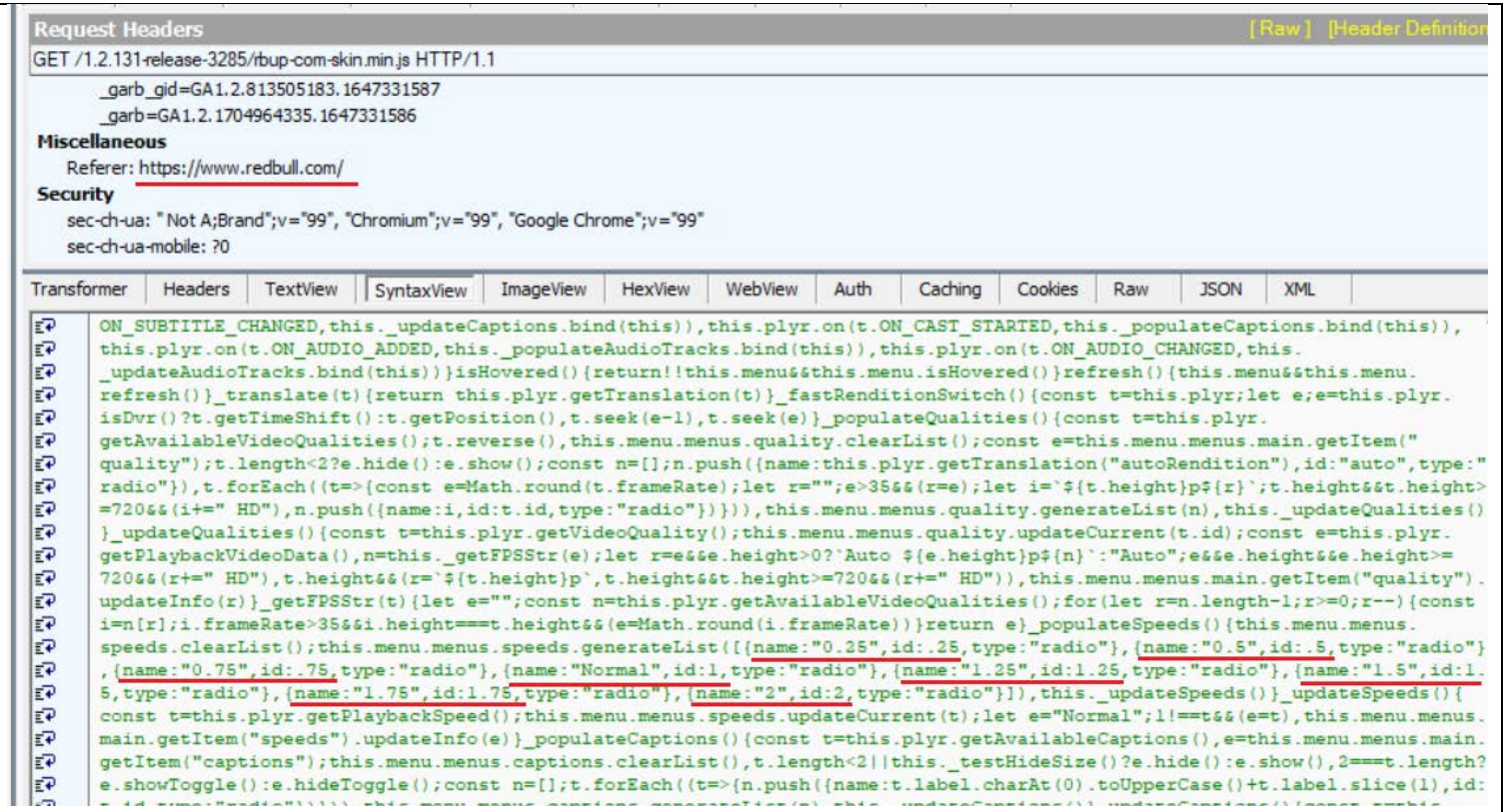

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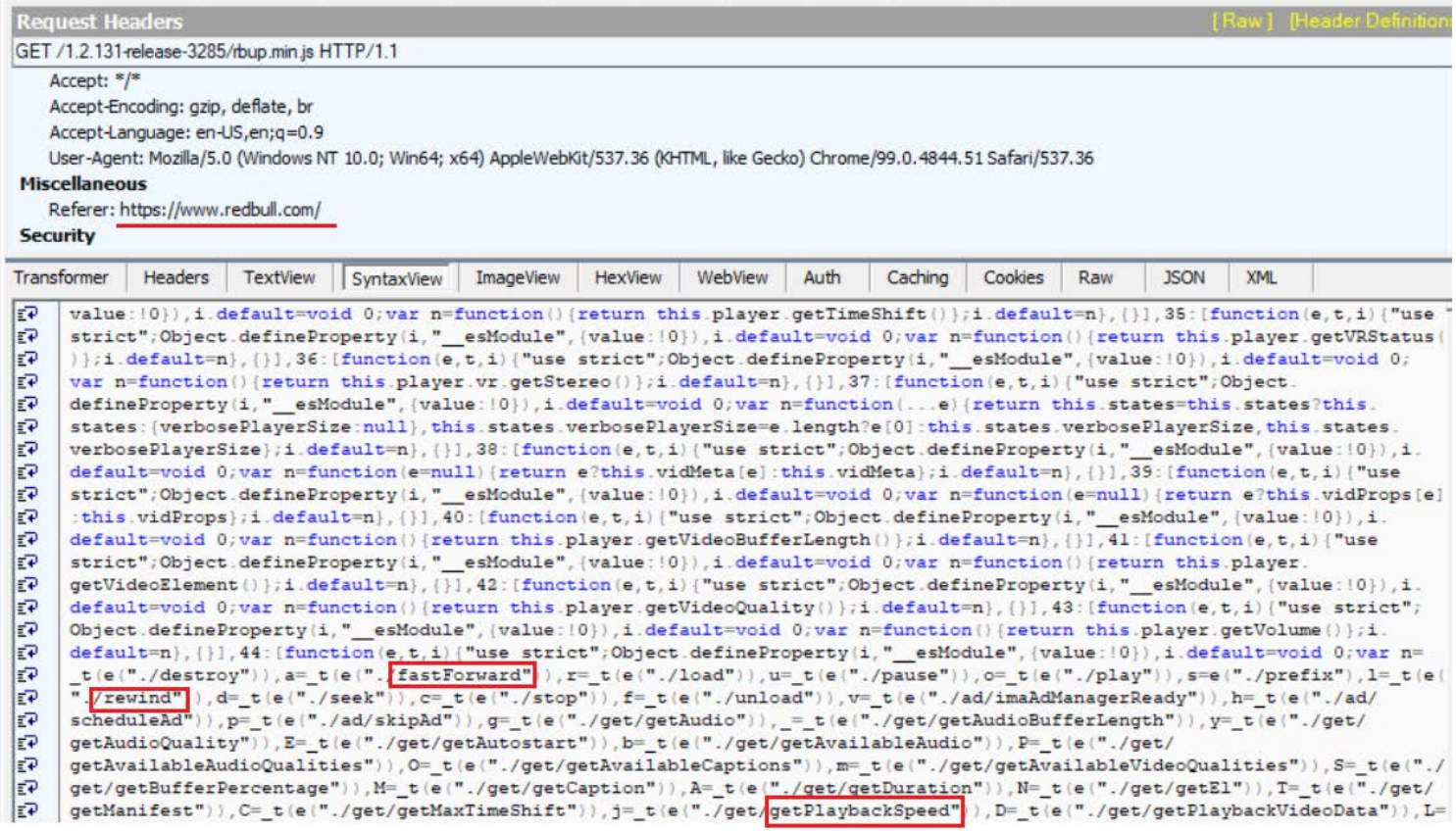

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